

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Facilitating the Deployment of Text-to-911)	PS Docket No. 11-153
and Other Next Generation 911 Applications)	
)	
Framework for Next Generation 911)	PS Docket No. 10-255
Deployment)	

REPLY COMMENTS OF VERIZON AND VERIZON WIRELESS

The initial comments in this proceeding demonstrate that the wireless industry is committed to deploying interim text-to-911 capabilities through widespread implementation of the December 2012 Voluntary Agreement.¹ Events since then affirm this commitment. Just last week, the Alliance for Telecommunications Industry Solutions and the Telecommunications Industry Association released a new technical standard that will provide service providers and PSAPs with a clear and feasible technology path toward text-to-911 implementation.² The Competitive Carriers Association also announced that most of its members will be able to implement the “bounceback” requirement by the Agreement’s June 30, 2013 target.³ And Verizon Wireless launched text-to-911 service in Frederick, Maryland, where the Maryland

¹ See Letter from APCO, NENA, AT&T, Sprint, T-Mobile, and Verizon, PS Docket Nos. 11-153 and 10-255, filed Dec. 6, 2012 (the “Voluntary Agreement”); CTIA Comments at 2; Sprint Comments at 1-2; T-Mobile Comments at 1-2.

² See Alliance for Telecommunications Industry Solutions and Telecommunications Industry Association, J-STD-110, *Joint ATIS/TIA Native SMS to 9-1-1 Requirements & Architecture Specification* (ATIS/TIA 2013).

³ Competitive Carriers Association (CCA), *Ex Parte* Letter in PS Docket Nos. 11-153, 10-255, filed March 25, 2013, at 1.

School for the Deaf is located, and is working with PSAPs and other officials on deployments in several other states and localities.

This progress underscores why the Commission should allow providers and PSAPs to continue working cooperatively to expand text-to-911 services as envisioned by the Voluntary Agreement, rather than impose specific regulations. Commenters explain that regulations, particularly mandates that dictate particular technologies or capabilities, could prove counterproductive by impeding rapid text-to-911 deployment, and urge the Commission to allow flexibility in 911 connectivity arrangements and technical capabilities. For example, several parties confirm Verizon's comments explaining the limitations of text-to-911 with respect to roaming, PSAP routing, and precise location capability, and agree that regulatory mandates in these areas are inappropriate.⁴ Public safety commenters advocating additional enhanced capabilities for text-to-911 service understandably support many of the 911 features currently available for wireless voice 911 calls,⁵ but such capabilities are already on track for incorporation into IP-enabled emergency communications services through ongoing 3GPP standards efforts, and the Commission should consider them in its broader NG911 proceeding.⁶

⁴ See AT&T Comments at 19-20 (routing and roaming); CTIA Comments at 11-13 (roaming); Intrado Comments at 3-4 (location information and routing); NENA Comments at 14 (roaming); Sprint Comments at 13-14 (roaming); TCS Comments at 3-4 (location information and routing); T-Mobile Comments at 6-7 (location information and roaming); *see also* Rural Telecommunications Group Comments at 3 (location information).

⁵ See, e.g., APCO Comments at 4-5 (supporting precise location information and roaming obligation for text-to-911); Boulder RETSA Comments at 12-13 (location information); Fairfax County Comments at 6-7 (location information).

⁶ See *Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications, Framework for Next Generation 911 Deployment*, Notice of Proposed Rulemaking, 26 FCC Rcd 13615, ¶¶ 31, 77 (2011) (describing location information and other components of IP-enabled services and service provider NG911 standards).

I. THE COMMISSION SHOULD SUPPORT MULTIPLE INTERIM TEXT-TO-911 SOLUTIONS, INCLUDING SMS-TO-TTY.

The Commission generally proposed that service providers and PSAPs retain flexibility to implement different text-to-911 solutions that accommodate different PSAPs' capabilities and resources.⁷ Commenters and the new ATIS/TIA standard support that approach.⁸ Verizon's text-to-911 solution provides PSAPs with different options for receiving emergency texts that they can choose among depending on their particular needs and capabilities, including an SMS-to-TTY conversion method that enables a PSAP to utilize its existing TTY equipment. Verizon anticipates implementing that option in various markets in the near future. The Commission's Emergency Access Advisory Committee (EAAC) just last month also recommended that such capability be available to PSAPs, recognizing the potential benefits to PSAPs with legacy equipment and networks, as well as issues PSAPs will face.⁹

Several commenters question the capabilities of an SMS-to-TTY option. While NG911 deployment remains the best path forward, PSAPs are capable of ascertaining whether their own networks and personnel are equipped to handle this interim option, and of making the necessary judgments concerning choices among different technologies, including SMS-to-TTY. Verizon's SMS-to-TTY option entails legacy PSAP network and CPE technology and necessarily will function differently than other options, and Verizon is currently assessing the technical and network details of SMS-to-TTY, as well as the full scope of additional costs that may be

⁷ See *In the Matter of Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications, Framework for Next Generation 911 Deployment*, PS Docket Nos. 11-153 and 10-255, Further Notice of Proposed Rulemaking, 27 FCC Rcd 15659, ¶ 127 (2012) ("FNPRM").

⁸ See APCO Comments at 5-6; AT&T Comments at 21.

⁹ See EAAC, *Report of Emergency Access Advisory Committee Subcommittee 1 on Interim Text Messaging to 9-1-1*, at 13-14 (rel. Mar. 1, 2013); see also NENA Comments at 19-20.

necessary at the PSAP level. Various comments concerning the performance of TTY-based solutions, however, are not consistent with Verizon's experience and testing to date. Intrado and Bandwidth.com, for example, assert that the relative speed of TTY transmissions do not support its use.¹⁰ Verizon's testing, however, indicates substantially lower latencies, although those speeds will depend on other factors such as the quality of the interface to the selective router, the quality of the interface between the selective router and the PSAP, and the speed of the typing. While PSAPs and consumers using this method will have a different text-to-911 experience than those using the IP or web interface method, the Commission should allow industry and PSAPs to learn from early deployments and let PSAPs address those matters via investments in equipment or facility upgrades, personnel training and procedures and consumer education.

In addition, APCO questioned the accuracy of a bounceback message under this option.¹¹ While the bounceback is principally relevant only when a PSAP has not deployed text-to-911, Verizon's solution enables a PSAP to set a default number of sessions it will support at one time while transmitting an accurate bounce back message when the PSAP exceeds that number. In short, there is no basis for discouraging the deployment of SMS-to-TTY methods. The Commission should continue to allow providers and PSAPs to collaborate on the best solution for each PSAP and avoid dictating the way that text-to-911 must work.

¹⁰ See Intrado Comments at 5-7 (asserting latency of 30 seconds to deliver a message); Bandwidth.com Comments at 13 ("endorsing text-to-TTY would be a step backwards ...").

¹¹ See APCO Comments at 5-6.

II. THE COMMISSION SHOULD NOT DICTATE TEXT-TO-911 CONNECTIVITY ARRANGEMENTS AND TECHNICAL STANDARDS

Some commenters request that the Commission mandate the use of the NENA i3 architecture and interfaces.¹² Such a requirement would be inconsistent with the flexible approach to service provider-PSAP connectivity arrangements that facilitated the widespread deployment of wireless E911,¹³ and is unnecessary for text-to-911. While the i3 architecture, as proposed, could have benefits where PSAPs have implemented it, it has yet to be incorporated into industry technical standards. In addition, the i3 architecture is proposed for an NG911 environment; in contrast, text-to-911 is not an IP-enabled NG911 service. Moreover, Verizon's existing text-to-911 deployments demonstrate that the service is feasible *without* i3 interfaces and connectivity, so such a requirement is unnecessary. Finally, such a one-size-fits-all mandate is inconsistent with the Commission's proposed deployment framework, which would afford CMRS providers discretion to employ existing technologies in order to comply with the rule.¹⁴

Instead, the Commission should address issues such as the i3 architecture and connectivity arrangements in its broader NG911 rulemaking and defer them to industry standards development efforts. In that regard, ATIS is currently developing a standard for an IMS-based

¹² See NENA Comments at 14-15 (providers should "have a presumptive obligation to interconnect with NG9-1-1 systems using i3-compliant interfaces and protocols"); Texas 911 Entities Comments at 2-3 ("NENA i3 should be the presumptive single protocol used for delivery of all text messages to NG9-1-1 capable PSAPs" and providers "should be required to demonstrate compliance with" future i3 releases).

¹³ See *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, Second Memorandum and Order, 14 FCC Rcd 20850, ¶ 75 (1999) (explaining that the Commission has left "the development of the detailed technical and operational standards and the resolution of the numerous technical decisions necessary to implement E911 [as] matters for carriers, PSAPs, and other interested parties to address ... through mutual agreement or by submission to standards bodies.").

¹⁴ See *FNPRM* ¶ 60.

Emergency Services Architecture, with a target completion date of early 2014. Imposing an NG911-based technology requirement for a non-IP-enabled service before standards are complete puts the cart before the horse, particularly given that it is not technically necessary for the interim SMS-based deployments the Commission contemplates in the *FNPRM*. The Commission's recent Report to Congress on NG911 implementation matters highlighted potential risks associated with piecemeal, non-standards-based NG911 deployment.¹⁵ Imposing i3-based mandates could thus interject uncertainty into text-to-911 deployments where it does not exist today and would risk delaying deployment of this new service to consumers.

III. UNIFORM TEXT-TO-911 DEADLINES SHOULD APPLY TO ALL CMRS PROVIDERS.

Several commenters support a separate or substantially later implementation deadline to accommodate smaller non-nationwide carriers, but fail to provide specific facts as to why fragmented compliance deadlines are necessary, nor do they show why they would serve the public interest.¹⁶ If the Commission determines that a text-to-911 mandate is warranted, Verizon agrees with APCO that the Commission should impose a single deadline on *all* covered CMRS providers.¹⁷ Verizon's and other service providers' experience in deploying text-to-911, and ATIS/TIA's recent establishment of a technical standard based on legacy SMS platforms and technologies, establish that solutions already are technically feasible and available well in

¹⁵ See Federal Communications Commission, *Legal and Regulatory Framework for Next Generation 911 Services, Report to Congress and Recommendations*, at 32 (Feb. 22, 2013) ("As states and regional authorities move forward to deploy systems and infrastructure, there is a risk that different standards may be applied to network design and architecture, with associated negative impacts on the seamless delivery of traffic between ESInets.").

¹⁶ See CCA Ex Parte Letter, filed March 12, 2013, at 1; NENA Comments at 6-7; National Telecommunications Cooperative Ass'n Comments at 3-4; Rural Telecommunications Group Comments at 3.

¹⁷ See APCO Comments at 4.

advance of the May 2014 target date of the Voluntary Agreement.¹⁸ Moreover, allowing the service provider six months to initiate service after receiving a PSAP request, and authorizing extensions with the PSAP's consent,¹⁹ should accommodate small providers' concerns and obviate the need for a separate deadline. Moreover, the instances in which a smaller service provider is unable to meet a deadline would likely be confined to situations involving both unforeseen vendor implementation delays *and* the PSAP unreasonably withholding its consent for an extension. In those rare cases, the Commission's rules already allow for the grant of waiver relief of limited duration, so there is no need for a separate, later deadline for some providers.²⁰

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¹⁸ See *FNPRM* ¶ 102 (seeking comment on feasibility of “a uniform timeframe” and whether there are “there factors that could prevent small, rural, and regional CMRS providers ... from implementing text-to-911 in the same timeframe as the four major CMRS providers”).

¹⁹ See Verizon Comments at 9-10; AT&T Comments at 18.

²⁰ See 47 C.F.R. §§ 1.3, 1.925.